
EVALUATION OF THE HUNGARIAN SITUATION OF INDOOR AND OUTDOOR AIR POLLUTION AND THE RESPIRATORY DISEASES OF CHILDREN BY THE TOOLS OF THE EUROPEAN ENVIRONMENT AND HEALTH INFORMATION SYSTEM (ENHIS)

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Objective: One of the priority issues of the Children's Environment and Health Action Plan for Europe (CEHAPE) is "to prevent and reduce respiratory disease due to outdoor and indoor air pollution, thereby contributing to a reduction in the frequency of asthmatic attacks, and to ensure that children can live in an environment with clean air" (3rd Regional Priority Goal). The objective of the study was to assess the European and particularly the Hungarian situation of the children's respiratory diseases and the air pollution by means of the indicators of the European Environment and Health Information System (ENHIS).

Material and methods: Data regarding the indicators and relevant parts of the indicator fact sheets were used in the assessment. Data were retrieved from harmonized international databases in the ENHIS project. In addition, results of Hungarian surveys were used in some cases. Exposure, health effect and action (policy) indicators were selected based on the DPSEEA (Driving Forces - Pressures - State - Exposure - Effects - Actions) model.

Results: Large proportion of the European population (including children) in urban areas is exposed to ambient concentrations of PM₁₀ above the WHO guideline level. The exposure of the population of the 4 monitored Hungarian cities is below the EU limit value. The other exposure indicator shows that a high percentage of 13–15-year-olds is exposed to environmental tobacco smoke (ETS) in their homes in many European countries. The results of the Hungarian survey indicate a smaller but significant exposure.

Early childhood mortality due to respiratory diseases varies considerably across Europe. Studies have found that there is a positive association between the level of air pollutants and mortality in children due to respiratory causes, however several other factors e.g. infectious agents, diet, lifestyle, other environmental and social factors may also be important. Asthma and allergy represent a significant burden of disease in European children and the prevalence of both is rising. The Hungarian surveys underpin these results. Studies suggest the importance of environmental factors in the causation of asthma and allergy or the triggering and exacerbation of the symptoms.

The action indicator 'Policies to reduce the exposure of children to ETS' illustrates that most of the European countries implement policies to restrict smoking in public areas. Some member states of the EU implemented comprehensive bans on smoking in public places and workplaces. The Green Paper 'Towards a Europe free

from tobacco smoke' concludes that a comprehensive smoke-free policy would bring the biggest health benefit to the public health of the population. The Hungarian Ministry of Health considers the implementation of such a policy.

Conclusions: Outdoor air pollution remains a pan-European problem. Creating traffic free zones in urban areas may reduce exposure of children to air pollution and noise, as well as the risk of traffic accidents. The number of children exposed to ETS pre- and postnatal at home is unacceptable. Legislation can be an effective tool to reduce ETS exposure in public places, it encourages people to stop smoking, however, information and motivating activities are needed to reduce smoking in the home.